

ABSTRACT OF THE DISCLOSURE

A fuel cell having a non-uniform electrical resistivity over the flow area of the cell. Resistance is higher in areas of the cell having locally low levels of hydrogen than in areas having locally high levels of hydrogen. Excess oxygen ion migration and buildup is suppressed in regions having low hydrogen concentration and is correspondingly increased in regions having a surfeit of hydrogen. Destructive oxidation of the anode is suppressed and a greater percentage of the hydrogen passed into the cell is consumed, thereby increasing electric output.

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